

**In the Claims:**

Please amend claims 1 and 17 to 20 as follows:

1. (currently amended) An optical element for an optical data transfer device said optical element comprising an optical glass with an index of refraction ( $n_d$ ) greater than or equal to 1.70, an Abbé number ( $v_d$ ) greater than or equal to 35 and a density ( $p$ ) that is less than or equal to 4.5 g/cm<sup>3</sup>,

wherein said optical glass has a composition, in weight percent on an oxide basis, comprising:

<u>La<sub>2</sub>O<sub>3</sub></u>	<u>30 to 55</u>
<u>B<sub>2</sub>O<sub>3</sub></u>	<u>20 to 40</u>
<u>SiO<sub>2</sub></u>	<u>0 to 8</u>
<u>PbO</u>	<u>0 to 5</u>
<u>MgO</u>	<u>0 to 8</u>
<u>CaO</u>	<u>0 to 8</u>
<u>SrO</u>	<u>0 to 8</u>
<u>BaO</u>	<u>0 to 8</u>
<u>ZnO</u>	<u>0 to 10</u>
<u>TiO<sub>2</sub></u>	<u>0 to 5</u>
<u>ZrO<sub>2</sub></u>	<u>0 to 10</u>
<u>GeO<sub>2</sub></u>	<u>0 to 15</u>
<u>Y<sub>2</sub>O<sub>3</sub></u>	<u>0 to 11</u>

<u>Yb<sub>2</sub>O<sub>3</sub></u>	<u>0 to 5</u>
<u>Gd<sub>2</sub>O<sub>3</sub></u>	<u>0 to 5</u>
<u>Nb<sub>2</sub>O<sub>5</sub></u>	<u>0 to 10</u>
<u>with MgO+CaO+SrO+BaO</u>	<u>0 to 10.</u>

2. (previously presented) The optical element as defined in claim 1, wherein said Abbé number ( $v_d$ ) is greater than or equal to 40.

3. (previously presented) The optical element as defined in claim 1, wherein said density ( $\rho$ ) that is less than or equal to 4.3 g/cm<sup>3</sup>.

4. (canceled)

5. (withdrawn) A read-and-write device for optical data transfer, said read-and-write device comprising an optical glass with an index of refraction ( $n_d$ ) greater than or equal to 1.70, an Abbé number ( $v_d$ ) that is greater than or equal to 35 and a density ( $\rho$ ) that is less than or equal to 4.5 g/cm<sup>3</sup>.

6. (withdrawn) The read-and-write device with a movable read-write head and at least one optical element, said at least one optical element comprising an optical glass with an index of refraction ( $n_d$ ) greater than or equal to 1.70, an Abbé number ( $v_d$ ) greater than or equal to 35 and a density ( $\rho$ ) is less than or equal to

4.5 g/cm<sup>3</sup>.

Claims 7 to 15. (canceled)

16. (previously presented) The optical element as defined in claim 1, wherein said optical glass is a lanthanate borate glass, said lanthanate borate glass necessarily comprises La<sub>2</sub>O<sub>3</sub>, B<sub>2</sub>O<sub>3</sub> and ZrO<sub>2</sub> and said lanthanate borate glass includes either Y<sub>2</sub>O<sub>3</sub> or Nb<sub>2</sub>O<sub>5</sub>, and wherein a sample of said lanthanate borate glass with a 25 mm thickness has a spectral transmission purity degree of at least percent 70.8 percent at a wavelength of 400 nm and a partial dispersion of no more than 0.567 in the blue spectral region.

17. (currently amended) An optical element for an optical data transfer device  
said optical element comprising an optical glass with an index of refraction (n<sub>d</sub>)  
greater than or equal to 1.70, an Abbé number (v<sub>d</sub>) greater than or equal to 35  
and a density (ρ) that is less than or equal to 4.5 g/cm<sup>3</sup> The optical element as defined in claim 1, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La <sub>2</sub> O <sub>3</sub>	30 to 45
B <sub>2</sub> O <sub>3</sub>	30 to 40
Al <sub>2</sub> O <sub>3</sub>	0 to 5
PbO	0.1 to 5

$\text{Li}_2\text{O}$	0 to 10
$\text{Na}_2\text{O}$	0 to 10
$\text{K}_2\text{O}$	0 to 10
$\text{Rb}_2\text{O}$	0 to 10
$\text{Cs}_2\text{O}$	0 to 10
$\text{MgO}$	0 to 8
$\text{CaO}$	0 to 8
$\text{SrO}$	0 to 8
$\text{BaO}$	0 to 8
$\text{ZnO}$	1 to 10
$\text{TiO}_2$	0 to 5
$\text{ZrO}_2$	1 to 10
$\text{Y}_2\text{O}_3$	1 to 8
$\text{Yb}_2\text{O}_3$	0.1 to 2
$\text{Gd}_2\text{O}_3$	0.1 to 5
$\text{Nb}_2\text{O}_5$	0.1 to 10
with $\text{MgO}+\text{CaO}+\text{SrO}+\text{BaO}$	0 to 10
with $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ ,  $\text{Sb}_2\text{O}_3$ ,  $\text{As}_2\text{O}_3$ ,  $\text{SnO}_2$  and  $\text{CeO}_2$ .

18. (currently amended) An optical element for an optical data transfer device  
said optical element comprising an optical glass with an index of refraction ( $n_d$ )  
greater than or equal to 1.70, an Abbé number ( $v_d$ ) greater than or equal to 35  
and a density ( $\rho$ ) that is less than or equal to 4.5 g/cm<sup>3</sup> The optical element as  
defined in claim 1, wherein said optical glass is a lanthanate borate glass with a  
composition, in percent by weight based on oxide content, which consists of:

La <sub>2</sub> O <sub>3</sub>	35 to 50
B <sub>2</sub> O <sub>3</sub>	30 to 40
Al <sub>2</sub> O <sub>3</sub>	0 to 5
SiO <sub>2</sub>	0 to 8
GeO <sub>2</sub>	0.5 to 15
Li <sub>2</sub> O	0 to 10
Na <sub>2</sub> O	0 to 10
K <sub>2</sub> O	0 to 10
Rb <sub>2</sub> O	0 to 10
Cs <sub>2</sub> O	0 to 10
SrO	0 to 2
BaO	0.1 to 7
ZnO	0 to 5
ZrO <sub>2</sub>	0.1 to 8
Y <sub>2</sub> O <sub>3</sub>	0.1 to 6
Gd <sub>2</sub> O <sub>3</sub>	0 to 5

$\text{Nb}_2\text{O}_5$	1 to 10
With $\text{Li}_2\text{O} + \text{Na}_2\text{O} + \text{K}_2\text{O} + \text{Rb}_2\text{O} + \text{Cs}_2\text{O}$	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ ,  $\text{Sb}_2\text{O}_3$ ,  $\text{As}_2\text{O}_3$ ,  $\text{SnO}_2$  and  $\text{CeO}_2$ .

19. (currently amended) An optical element for an optical data transfer device  
said optical element comprising an optical glass with an index of refraction ( $n_d$ )  
greater than or equal to 1.70, an Abbé number ( $v_d$ ) greater than or equal to 35  
and a density ( $p$ ) that is less than or equal to 4.5 g/cm<sup>3</sup>. The optical element as  
defined in claim 1, wherein said optical glass is a lanthanate borate glass with a  
composition, in percent by weight based on oxide content, which consists of:

$\text{La}_2\text{O}_3$	40 to 55
$\text{B}_2\text{O}_3$	22 to 32
$\text{Al}_2\text{O}_3$	0 to 5
$\text{SiO}_2$	1 to 8
$\text{Li}_2\text{O}$	0 to 10
$\text{Na}_2\text{O}$	0 to 10
$\text{K}_2\text{O}$	0 to 10
$\text{Rb}_2\text{O}$	0 to 10
$\text{Cs}_2\text{O}$	0 to 10

SrO	0 to 8
BaO	0 to 2
ZnO	0.5 to 6
TiO <sub>2</sub>	0 to [[3]] 1.0
ZrO <sub>2</sub>	2 to 10
Y <sub>2</sub> O <sub>3</sub>	3 to 11
With Li <sub>2</sub> O+Na <sub>2</sub> O+K <sub>2</sub> O+Rb <sub>2</sub> O+Cs <sub>2</sub> O	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO<sub>4</sub><sup>-2</sup>, Cl<sup>-</sup>, Sb<sub>2</sub>O<sub>3</sub>, As<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub> and CeO<sub>2</sub>.

20. (currently amended). An optical element for an optical data transfer device  
said optical element comprising an optical glass with an index of refraction (n<sub>d</sub>)  
greater than or equal to 1.70, an Abbé number (v<sub>d</sub>) greater than or equal to 35  
and a density (ρ) that is less than or equal to 4.5 g/cm<sup>3</sup> The optical element as  
defined in claim 1, wherein said optical glass is a lanthanate borate glass with a  
composition, in percent by weight based on oxide content, which comprises  
consists of:

La <sub>2</sub> O <sub>3</sub>	10 to 16
B <sub>2</sub> O <sub>3</sub>	1 to 8
Al <sub>2</sub> O <sub>3</sub>	0 to 3

<chem>SiO2</chem>	20 to 30
<chem>Li2O</chem>	0 to 10
<chem>Na2O</chem>	0 to 10
<chem>K2O</chem>	0 to 10
<chem>Rb2O</chem>	0 to 10
<chem>Cs2O</chem>	0 to 10
<chem>SrO</chem>	0 to 8
<chem>BaO</chem>	0 to 8
<chem>ZnO</chem>	1 to 8
<chem>ZrO2</chem>	0.5 to 6
<chem>TiO2</chem>	3 to 11
<chem>Nb2O5</chem>	10 to 18
With <chem>Li2O+Na2O+K2O+Rb2O+Cs2O</chem>	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ ,  $\text{Sb}_2\text{O}_3$ ,  $\text{As}_2\text{O}_3$ ,  $\text{SnO}_2$  and  $\text{CeO}_2$ .

21. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein said density ( $\rho$ ) that is less than or equal to  $4.3 \text{ g/cm}^3$ .

22. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein a sample of said optical glass with a 25 mm thickness has a spectral transmission

purity degree of at least percent 70.8 percent at a wavelength of 400 nm and a partial dispersion of no more than 0.567 in the blue spectral region.

23. (withdrawn) The read-and-write device as defined in claim 5 or 6, wherein said optical glass is a lanthanate borate glass, said lanthanate borate glass necessarily comprises  $\text{La}_2\text{O}_3$ ,  $\text{B}_2\text{O}_3$  and  $\text{ZrO}_2$  and said lanthanate borate glass includes either  $\text{Y}_2\text{O}_3$  or  $\text{Nb}_2\text{O}_5$ .

24. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

$\text{La}_2\text{O}_3$	30 to 45
$\text{B}_2\text{O}_3$	30 to 40
$\text{Al}_2\text{O}_3$	0 to 5
$\text{PbO}$	0.1 to 5
$\text{Li}_2\text{O}$	0 to 10
$\text{Na}_2\text{O}$	0 to 10
$\text{K}_2\text{O}$	0 to 10
$\text{Rb}_2\text{O}$	0 to 10
$\text{Cs}_2\text{O}$	0 to 10
$\text{MgO}$	0 to 8
$\text{CaO}$	0 to 8
$\text{SrO}$	0 to 8

BaO	0 to 8
ZnO	1 to 10
TiO <sub>2</sub>	0 to 5
ZrO <sub>2</sub>	1 to 10
Y <sub>2</sub> O <sub>3</sub>	1 to 8
Yb <sub>2</sub> O <sub>3</sub>	0.1 to 2
Gd <sub>2</sub> O <sub>3</sub>	0.1 to 5
Nb <sub>2</sub> O <sub>5</sub>	0.1 to 10
with MgO+CaO+SrO+BaO	0 to 10
with Li <sub>2</sub> O+Na <sub>2</sub> O+K <sub>2</sub> O+Rb <sub>2</sub> O+Cs <sub>2</sub> O	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO<sub>4</sub><sup>-2</sup>, Cl<sup>-</sup>, Sb<sub>2</sub>O<sub>3</sub>, As<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub> and CeO<sub>2</sub>.

25. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La <sub>2</sub> O <sub>3</sub>	35 to 50
B <sub>2</sub> O <sub>3</sub>	30 to 40
Al <sub>2</sub> O <sub>3</sub>	0 to 5
SiO <sub>2</sub>	0 to 8
GeO <sub>2</sub>	0.5 to 15

Li <sub>2</sub> O	0 to 10
Na <sub>2</sub> O	0 to 10
K <sub>2</sub> O	0 to 10
Rb <sub>2</sub> O	0 to 10
Cs <sub>2</sub> O	0 to 10
SrO	0 to 2
BaO	0.1 to 7
ZnO	0 to 5
ZrO <sub>2</sub>	0.1 to 8
Y <sub>2</sub> O <sub>3</sub>	0.1 to 6
Gd <sub>2</sub> O <sub>3</sub>	0 to 5
Nb <sub>2</sub> O <sub>5</sub>	1 to 10
With Li <sub>2</sub> O+Na <sub>2</sub> O+K <sub>2</sub> O+Rb <sub>2</sub> O+Cs <sub>2</sub> O	0 to 10;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of SO<sub>4</sub><sup>-2</sup>, Cl<sup>-</sup>, Sb<sub>2</sub>O<sub>3</sub>, As<sub>2</sub>O<sub>3</sub>, SnO<sub>2</sub> and CeO<sub>2</sub>.

26. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

La <sub>2</sub> O <sub>3</sub>	40 to 55
B <sub>2</sub> O <sub>3</sub>	22 to 32

$\text{Al}_2\text{O}_3$	0 to 5
$\text{SiO}_2$	1 to 8
$\text{Li}_2\text{O}$	0 to 10
$\text{Na}_2\text{O}$	0 to 10
$\text{K}_2\text{O}$	0 to 10
$\text{Rb}_2\text{O}$	0 to 10
$\text{Cs}_2\text{O}$	0 to 10
$\text{SrO}$	0 to 8
$\text{BaO}$	0 to 2
$\text{ZnO}$	0.5 to 6
$\text{TiO}_2$	0 to 3
$\text{ZrO}_2$	2 to 10
$\text{Y}_2\text{O}_3$	3 to 11
With $\text{Li}_2\text{O}+\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{Rb}_2\text{O}+\text{Cs}_2\text{O}$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of  $\text{SO}_4^{2-}$ ,  $\text{Cl}^-$ ,  $\text{Sb}_2\text{O}_3$ ,  $\text{As}_2\text{O}_3$ ,  $\text{SnO}_2$  and  $\text{CeO}_2$ .

27. (withdrawn) The read-and-write device as defined in claim 5, wherein said optical glass is a lanthanate borate glass with a composition, in percent by weight based on oxide content, which consists of:

$\text{La}_2\text{O}_3$	10 to 16
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$B_2O_3$	1 to 8
$Al_2O_3$	0 to 3
$SiO_2$	20 to 30
$Li_2O$	0 to 10
$Na_2O$	0 to 10
$K_2O$	0 to 10
$Rb_2O$	0 to 10
$Cs_2O$	0 to 10
$SrO$	0 to 8
$BaO$	0 to 8
$ZnO$	1 to 8
$ZrO_2$	0.5 to 6
$TiO_2$	3 to 11
$Nb_2O_5$	10 to 18
With $Li_2O+Na_2O+K_2O+Rb_2O+Cs_2O$	0 to 8;

and from 0 to 1.5 percent by weight of at least one refining agent, wherein said at least one refining agent is selected from the group consisting of  $SO_4^{2-}$ ,  $Cl^-$ ,  $Sb_2O_3$ ,  $As_2O_3$ ,  $SnO_2$  and  $CeO_2$ .